Made of Millions: An Evidence-Based Management Approach
Using Behavioral Science to Reduce Mental Health Stigma in the Workplace

Gina Soloperto

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Abstract
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Keywords
competition, social proximity, altruism, social identity, social norms, framing and priming, cooperation and coordination

Disciplines
Social and Behavioral Sciences
Made of Millions: An evidence-based management approach using behavioral science to reduce mental health stigma in the workplace

Gina Soloperto

Summer 2019

Eugen Dimant, Ph.D.
ABSTRACT

Made of Millions is a New York-based global advocacy nonprofit that uses art, media and technology to democratize mental health knowledge and access to care to reduce stigma. (Made of Millions, 2019) This capstone incorporates behavior science into an evidence-based management (Briner, et al., 2009) model to understand how competitive environments and social proximity can shape our altruistic preferences (Dimant, Hyndman, 2019) to inform a behavioral intervention design aimed at reducing mental health stigma within a target workplace population. This paper integrates existing behavioral evidence, including underlying factors causing stigma and strategies to confront it with three key additional variables: Professional expert data (facts and figures surrounding workplace mental health); Organizational (internal) data, and Stakeholder values and concerns (expressed needs and challenges from those who may be affected by the intervention). With this holistic perspective of the problem, we will identify the optimal behavioral drivers informing our intervention design proposal. The goal of this intervention is to answer the question of how using behavioral insights can reduce mental health stigma in the workplace, increase social proximity, and improve greater access to resources and care.

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ACKNOWLEDGEMENTS

The mental health crisis in America is real, and it’s expensive. In the U.S. alone, mental health and substance abuse costs businesses between $80 and $100 billion annually, in addition to a $192 billion loss in workforce productivity. (nami.org) Stigma continues to be the number one barrier to getting access to education, resources and care and is the topic of personal and professional relevance to me.

I was 7 years old when my father was diagnosed with Bipolar Disorder, while his mental health was declining for a few years before. Access to care in the early 1980’s typically meant talking to a priest, and would be years before any of us got educated on my dad’s condition and what that would mean for my brothers and me. Thus, growing up in an environment of constant ambiguity and uncertainty was the norm. I was taught not to believe everything I heard because in the context of my father’s illness, I might be the recipient (and often was) of potentially harmful statements. This experience taught me resilience and self-reliance, and more importantly, how to listen and observe others with empathy and discernment. I learned to identify the congruities (and inconsistencies) of individuals’ words and actions; when someone was following the norm, or challenging the status quo. This became a powerful management skill in my advertising and marketing career that enabled me to lead and coach a wide range of divergent personalities to harmonious outcomes, that is until the invention and wide-spread adoption of ever-distracting smartphones and social media.

What was once arguably a “technostress” problem (RescueTime, 2019) of for innovation companies, limiting cognitive load with a rapid-fire barrage of interruptions and impairing decision-making has spread across companies, institutions, and communities of all shapes and sizes. The impact for companies, despite efforts to provide employees with resources and training tools, is a distracted workforce with lower trust and engagement, leaving many employees abandoned by their employers. The crux of this capstone is to explore the dynamic tension between competition and altruism to begin to understand how we can successfully navigate competitive environments and still empowers us to do the right thing. (Dimant, Hyndman, 2019) By delivering this case using an evidence-based management (Briner, et al., 2009) approach we create an opportunity that enables practitioners to maximize empirical evidence from academia through an applied, real world filter, which, I hope, will encourage increased adoption of the practice.
The MBDS education, particularly with the guidance from Eugen Dimant, Nazli Bhatia, Enrique Fatas and Harvey Floyd, has provided me the tools and consciousness to enhance my accumulated personal, academic, and professional experiences, observations and insights with proven behavioral evidence to help bring people closer together to enable better decision-making, increase our understanding of each other, and in the case improve mental health and well being. As someone who struggles with anxiety, attention deficit disorder, and slower cognitive processing speed, I’ve approximated my own productivity loss of 50 or so hours of anxiety-induced mental swirling over the past 3 weeks while working on this paper. Did I mention I’m resilient? Well, I’m also passionate, and my intention for my work is to use evidence from behavioral science to design solutions that will motivate people to live healthier, safer, productive, and meaningful lives that will extend far beyond this capstone.
BACKGROUND & MOTIVATION

The state of mental health and wellness in modern workplaces show that depression and anxiety are on the rise resulting in an estimated $300 billion cost in lost productivity for U.S. businesses. Of the 32 million workers experiencing mental illness in a given year, only half seek treatment and few feel comfortable confiding in an employer when they need help. Job-induced anxiety and depression are on the rise, while technology continues to blur the lines between work-life and home-life. (Made of Millions, 2019)

In the past twelve years, technology has significantly impaired the way we make decisions, communicate, and ultimately, relate to each other, resulting in an “always-on” culture of constant interruptions, unmanageable workloads, unrealistic timeframes, and limited cognitive function. (NAMI 2018; AIS, 2019; CDC, 2019; Made of Millions, 2019; Haidt, J., & Twenge, J. 2019) While the conversation around mental health is changing for the better, and 87% of American adults agreed that having a mental health disorder is nothing to be ashamed of, stigma remains the primary barrier preventing people from getting the help they need. Prior studies cited a “lack of standardized IT-based data sources, limited scientific and behavioral evidence for mental health quality measures, lack of provider training and support, and cultural barriers, to integrating mental health care within general health environments” (Kilbourne, et al, 2018) that affect everyone from the individual, to organization, to medical and other institutions, healthcare providers, and policymakers. Still pressure for organizations to remain competitive, especially in innovative environments (and often while employees care for a family at home) tend to increase employees’ stressor perceptions and limit availability for accommodations and support. (Tacy, 2016; Wang, et. al, 2008, RescueTime, 2019)

Time has become increasingly scarce, and the pressure to deliver results, or achieve goals reduces our ability to see, hear, and understand each other leading to an erosion of trust in the workplace. Workers don’t feel safe enough to express their needs, which can potentially lead to employee burnout and high turnover, while employers face lost revenue often unaware to what extent because of underreporting. (AIS; Mental Health America; Edelman; OneMind, 2019)

Made of Millions Foundation, a global advocacy nonprofit that uses art, media and technology to democratize mental health knowledge and access to care, is on a mission to
help organizations break through the clutter of everyday business as usual to reduce stigma that holds us back. This capstone seeks to support Made of Millions’ mission and find key learning from behavioral evidence to design and deploy a media-based pilot intervention in New York City to reduce stigma in the workplace.

INTRODUCTION

Stigma, when related to mental health is a sticky topic that difficult to address for many reasons and the biggest barrier may be because so many individuals tend to self-stereotype themselves, exacerbating one’s self-esteem leading to isolation and social rejection. (Hoff & Walsh, 2017; Wahl, 2012, Cruwys & Gunaseelan, 2015) The business case for resolving the mental health workforce crisis provide a crystal clear economic argument for why stigma should be eradicated from companies, yet social change is at times slow to adapt or fall victim to the conformity trap, even in the best interest of the members to change. (Andreoni et al.2017) Workplace stressor are increasing and thereby reducing our cognitive function, and it’s easy for highly visible influencers to send the wrong message about what is normal behavior. (Bicchieri, et.al. 2019) Made of Millions' goal to reduce stigma, particularly in frenetic and competitive workplaces supported by behavioral research from Dimant and Hyndman (2019) highlights an important gap in research understanding how competitive environments and the social proximity affect peoples’ altruistic tendencies. Initial findings show an increase of trust when peers are in high proximity of each other, but decrease drastically when faced with a competitive score, revealing a critical opportunity to inform the behavior design of the proposed workplace intervention. This paper will further examine the interplay between competition and social proximity from the results of a Dimant and Hyndman latest trust game (TG) data, along with behavioral evidence from lab research and social norm interventions using media-based approaches to reducing prejudice, normalizing mental health, and increasing belonging (Made of Millions 2019; Ideas42 Case Study, 2017; Paluck and Green, 2008; Hipes et al, 2016). I will amalgamate the behavioral insights into an Evidence-based management (EBGMT) model (Briner, et al., 2009), by incorporating behavioral evidence, facts and figures from the organization, values and needs from those affected by the intervention, and inputs from professional experts and practitioners to present a holistic, congruent vantage point of the problem to solve, and validated hypotheses.
In the sections that follow, I will review relevant behavioral science literature supported by two primary research inputs. The next section proposes an experimental design with inputs from behavioral science literature, primary and secondary research, including intervention hypotheses, target population, treatments, procedures, behavioral drivers, and analytical framework. Lastly, I will discuss possible results and impact, and lastly, followed by a discussion featuring key consideration for developing a formal pilot program.

LITERATURE REVIEW

**Stigma, Identity and Social Norms**

As I began to look at behavioral mechanisms to reduce mental health stigma, I first wanted to understand where stigma exists, what evidence has been shown to reduce it, and how hyper-competitive environments, like the workplace, can promote and enable behavior change to support mental health sufferers. Stigma around mental health and the process of its formation have two main factors; the social stigma around people with mental illness, and the self-stigma of those suffering, both of which lead to stereotyping, prejudice, and discrimination. People affected are often treated with disrespect or considered lazy, and in many cases others’ an anxious awkwardness may arise caused by believing the stigmatized person is dangerous, or the uncertainty of interacting with the person is to difficult to handle. This leaves the sufferer feeling demoralized, with decreased social support, lowered self-esteem, fearful of seeking help, and unemployment. Therefore messages of inclusion, encouragement and empowerment are as important to recovery from mental illnesses as current treatments and medical innovation to find cures. (Arboleda-Flórez, 2002; Hebl et.al, 2000; Inclusion matters, World Bank, 2013, Wahl, 2012, Cruwys & Gunaseelan, 2015)

Given that stigma around mental health is so persistent from the individual to society, it is critical to find simple behavioral moments where we can disrupt the patterns. For example, Hipes et al. (2016) ran an experiment similar to others evaluating race and gender discrimination, (Bertrand, Mullainathan, 2004), focused on the first stage of an online job application predicted and confirmed that applicants containing a mental illness history led to hiring discrimination, and also confirmed that such applicants were less likely to receive callbacks than other applicants. While this finding could seem discouraging, Martinez et al. (2011) found that by adding an element of normative
interaction to one of their treatments, the degree to which people with mental illness were seen as human increased, thereby decreasing social rejection. By introducing relatable information or reducing the salience of a stigmatized identity, the gap between a stigmatized group and a dominant group diminish, suggesting that context may affect behavior or performance by modifying associations, relying on the mental models of how an individual interprets the situation. Thus without identifiable social cues or labels it becomes more difficult to ascribe to a norm of exclusion. (Hoff, Pandey 2012)

In recent decades, we’ve experienced and are in the midst of social norm shifts in culture, some of which afforded women, ethnical and racial minorities, and LGBTQ a seat at the table, and as a result, active contributors to economic and societal growth, while reducing barriers to inclusion. Even as we continue to see positive growth in these areas as well as increasingly positive outlook on supporting people with mental health challenges, to combat some of the cultural barriers we are still facing and maintain a culture of growth and inclusion require tolerance of heterodox views, rigorous standards based on proofs and reproducible experiments, positive attitudes towards openness, collaboration and disclosure. (The Economist, 2019; Spolaore, 2019) Given that science, technology, and economic mobility have sped up the process of cultural and social change, Andreoni, et al (2017) wanted to see if change happens merely when it is socially (or economically) beneficial to do so or if it happens slowly. What they found was that even if beneficial, and there are pressures to conform, some social norms can fail to shift. De, et al. (2018) use an evolutionary game theory model of a culture to measure an individual’s tendency to conform with others, vs. being more individualistic in their behavior by creating conditions where a population is open to changing the current societal norm, contingent on both the pressure to conform and the “abruptness of the boundary between following and violating the norm.” Similar to (Andreoni, et, al, 2017) an important finding here reveals that tighter, more conforming cultures will make the switch once enough people have migrated to a tipping point, which then causes rapid change, which looser, less restricting cultures tend to change gradually over time. The failure to change often occurs as a result of coordination failures where the onus typically rests on leadership, and particularly first-movers or innovators who are willing to take a few short-term risks in an effort to advance a mission. Other important evidence, similar to Made of Millions efforts, in driving change, is to call attention to the need for providing complete, salient, and actionable information making it easier for people to adapt, in contrast to a potential
The salience of relevant norms presented in order to persuade others to engage in a particular behavior face the dual challenge of making the norm salient not only immediately following message reception, but also in the future. (Cialdini, Goldstein, 2004) Thus, taking into account that many norms are often dynamic such the recipient of the message may not immediately know the result of the change, like LGBTQ gender rights, evidence suggests that exposing people to dynamic norms using descriptive messages can motivate attitude and behavior change against the status quo long before wide-spread norm compliance.

Sparkman and Walton (2017) found in their experiment testing different messages on people’s perspectives on high levels of meat consumption versus being an unhealthy and unsustainable choice that some people choose to reduce their meat consumption. They also found that dynamic norm messages could also bolster existing static norms, in this paper, referencing water conservation. This work reinforces how smaller populations, such as a New York office staff, can affect change, but that small group needs to be dedicated, visible, and consistent with position on an issue to potentially encourage broader change even in the face of a salient and socially entrenched current norm, much like that of mental illness workplace reform.

Similar to the opportunity to explore dynamic norm shifts (Andreoni, et al, 2017; Sparkman and Walton, 2019); Blair, et al. (2019) take this work from the lab to the field focused on the task of motivating the first adopters, who are typically key drivers in the showing importance of norm perception as a motivator for behavior change. As in the case with mental health stigma, when norms are rare, an increased norm perception can appear before the actual change in the broader community has occurred. As demonstrated in their media-based intervention in Nigeria, they consider that organizational or community-level role models of high social or professional status can often be effective at changing perceptions. Using high-status actors in a feature film about the importance of reporting corruption, and found that watching the film’s characters text about corruption shifted the viewers’ perceptions of norms in their community, specifically that corruption, and anger about corruption, was widespread.
The researchers assumed that viewers would overgeneralize the behavior of the characters in the film to others in their community, however, the treatment film did not increase perceptions of how widespread corruption reporting was or was becoming in their community, compared with viewers in placebo. This provides a possible argument for using real people with authority and relatability versus actors to increase salience and social proximity.

**Social Proximity, Trust, and Competition**

Important for workplace leaders and first movers to consider is that by increasing social proximity with employees and making the desired norm behaviors observable, the greater potential for norm compliance. Thus, it is also critical when designing interventions to consider strategies that expose employees to relatable others as means to influence change. (Bicchieri, et. al, 2019) Still “peer effects are not constant, but rather strongly dependent on both the (anti-) sociality of observed behavior and the degree of social proximity to the observed peer”. As previously stated, a large share of a population will likely follow prosocial norm behavior to some degree if they believe that others do and, particularly when that behavior is observable and support by leadership. When leaders implement simple behavioral rules, and make it clear that straying from cooperative norms will not be tolerated, there is stronger potential of shifting employees’ expectations in a positive direction. When that happens, the workplace value and engagement will naturally increase. (Dimant, 2019; Fehr, 2018)

As previously cautioned, prosocial behavior is contingent on observability and is vulnerable under influences of situational unpredictability and competition. Competition within a stable environment or workplace may instinctively foster prosocial behaviors provided it is supported by a self-reinforcing culture of altruistic competition, while the opposite holds true in an uncertain or unpredictable environment. (Zhu, et al., 2019) If prosocial behaviors can only occur within stable competitive environments, which are almost nonexistent in the modern workforce, this leads to a critical dilemma at the heart of the overarching research question, “How do competitive environments shape our altruistic preferences?” Business leaders and employees alike are faced with a barrage of disruptions on a daily basis stretching individuals’ capacity to simply accomplish a (micro) task merely to check it off a list, often while neglecting (macro) long-term impacts that pile up in the wake. Dimant and Hyndman (2019) zero in on this specific interplay between competition and how one’s social proximity impacts their trust
behavior in both dictator and trust games. Each participant completed a survey of 25 questions where the results determine high or low proximity, followed by a competitive task, then observation game play. By simply varying one player’s knowledge about who won or lost and if they were in high or low social proximity of their opponent, researchers began to see patterns emerge. When social proximity was high investors engaged in more reciprocal behavior than when they received any feedback. Without feedback, they saw that investors gave less. Trustees in turn, show no difference in return between high proximity and low proximity, but tend to reciprocate much less when following low proximity feedback or when the investor lost the competition.

In a separate set of data, N=960, for the same Trust Game experiment, I asked the same questions.

H1: Investors give the most when interacting with a high proximity peer.

Empirical Question 1: How does knowledge of the feedback of the competitive task and level of social proximity affect investor behavior?

Empirical Question 2: How does knowledge of the feedback of the competitive task and level of social proximity affect trustee behavior?

Overall, competition and social proximity were significant factors in player behavior, and consistent with the three main effects of the experiment are the interaction of competition, proximity, and feedback. Interaction effects across the game were as anticipated, W/L, Proximity, and Feedback. Trustees give less, showing marginal significance. Who wins is the biggest factor to determine the results. The proposer score increases when they win and are also in high proximity. When I remove the competition factor, the trustees also tend to favorably respond to the investor as well. When we add competition back, the investor and trustee behavior plummet drastically. (Visual below compares behavior of Investor v. Trustee with and without competition feedback)
In simply observing both investor and trustee behavior, although consistent with the results from the original study, taken outside of a lab setting and into design an intervention for an organization with a defined set of cultural norms, these results suggest that messages need to be relatable, and authentic in order to reduce social distance, and given the competitive and sometimes chaotic work environments, timing and delivery are of equal importance. (Bichieri, et al.; Blair, et al.; Dimant; Fehr, 2019)

**Primary Research**

(Attendees of two events cited are listed in the appendix, along with audio recordings)

In the spring of 2019, I conducted a focus group called Beautiful Brains, a discussion with leaders, employees and non-profit mental health advocates in New York City to
discuss the challenges we face in workplace mental health and to identify strategies for how we could improve conditions. To ground and focus this conversation, I broke it up into two parts. The first was an impromptu networking discussion amongst participants, using Liberating Structures as instructed by Sharon Benjamin from Penn’s Organizational Dynamics Program, (McCandless, Lipmanowicz, 2014), many of who had not met previously; and the second half of the discussion encouraged participants to take their insights and observations towards actionable outcomes using BJ Fogg’s Behavior Model (FBM). FBM states that three factors must be in place at the exact same time for a behavior to occur: Motivation, Ability, and Prompt. This model has two important maxims: “How do we make it easier for people to do what they already want to be doing? and “How do we help them feel successful?” (Fogg, 2009) This enables “blue sky” thinking that we can whittle down in concrete, doable actions for participants to take away as “homework”.

Kicking off the conversation, Sophie Pauze, Head of Strategic Partnerships for Thrive NYC asked, “How can we can talk about depression or anxiety in the same way we talk about having the flu or a broken arm? ” Both Pauze and Aaron Harvey, founder of Made of Millions cite the difficulty for employers to select the right solution for their culture, size, and employee needs, and look to the professional community for input on how best to get organizations to utilize available resources. Another participant, an advertising executive discussed stigma and in particular, norm of male vulnerability being virtually non-existent and an emotional expression being unacceptable being an additional barrier to getting support. Another area addressed, was how to help employees get access to access to feedback in real time, knowing that daily pressures that rest on leaders prevent them from listening intently to the needs. That responsibility, as the group agreed, rests on company leadership. In order to guide leaders and employees in the right direction, all agreed that by sharing stories and messages through a broader frame beyond clinical diagnoses and more about relatable, constructive, real life experiences connected to overall well being, we can start to eradicate stigma all together.

Consistent with these inputs, I moderated a discussion on Made of Millions’ Dear Manager campaign addressing a call to action for employers to support their workers with proper mental health accommodations, panelists, all high-functioning leaders in their industries, introduced themselves each sharing their deeply personal, yet constructive transparency mental health challenges, which observationally changed the audience’s
perspective on “what mental health looks like”. This was purposefully done so that we could dive into what these leaders are doing to change perspectives through their work. Simon Fenwick, Head of Diversity and Inclusion for The American Association of Advertising Agencies (The 4A’s), addressed the crisis with younger employees who are “often doing the work of two or more people and have managers that haven’t received proper training to deal with those stresses,” (Made of Millions, 2019) and are either unwilling or feel that they don’t have a trusted resource within the organization who can help. But leadership within an organization doesn’t always have to come from the top. It’s important that people identify trusted “champions” or allies in the organization so that they may be able to find support when it’s needed.

**Research Question And Hypotheses**

For leaders who can be instrumental in driving behavior change in regard to mental health, the business case is abundantly clear. Organizations and communities are suffering significant economic loss, largely a result of the rapid changes in culture generated by technology, while individuals and workers are getting more stressed out. However, the growing appetite for people to consider conversations around mental health and well-being is encouraging the need for a new narrative and approach to reducing stigma. In collaboration with Made of Millions, we refine our research question to ask how can we use behavioral insights to influence a media-based intervention designed to reduce mental health stigma in the workplace, increase social proximity, and improve greater access to resources and care?

We consider four mechanisms over three phases in a randomized control trial. The first part of our intervention will present short documentary films (either viewed on a mobile device or desktop computer) of current employees or peers sharing their struggles with mental health, where they’ve gotten stuck, what they did to get unstuck, and what they do to stay healthy and high functioning. This allows viewers to see authentic and identifiable moments within these stories and increase social proximity by signaling a new norm that the mental health challenges they face are not unique to them, nor are they a sign of personal failure. By arming people with that knowledge, they begin to see mental health the same way they view any other day-to-day work/life pressures that everyone else has experienced. This should also increase a sense of belonging by empowering employees by reinforcing one’s self-image to take advantage of company resources and activities without fear of judgment, persist through difficulties, and build plausible paths to
overcome challenges. (Ideas42’ Sense of Belonging; Made of Millions' Dear Manager; Walton & Cohen, 2011; Blair, et.al 2019).

Once the video ends, we will provide a direct link in the video app to complete a brief survey inspired in part the film, as well as select questions derived from Made of Millions' mental health workforce manual designed to tap into core themes of social identity and belonging. Example questions might be (Ideas42):

1) What was your biggest takeaway from the video?

a) There are many ways for me to ask for help in my, like contacting someone in H.R. or confiding in a trusted peer.

b) There are other people like me who have found success at Spotify.

c) Like other employees at Spotify, I will find my place in the company even if I struggle at times.

d) During my time at Spotify, I can use challenges to learn and grow as a person.

e) Other:

2. Briefly explain a work-related challenge that you overcame, and how you did it. How did you grow from that experience? (150 words or less)

3. Take this opportunity to send your “future self” some advice for the year ahead. (140 characters or less)

The benefits of this survey are two-fold in that leaders will gain richer sociocultural perspective data on what matters to their employees, while the responses will inform the messaging for the second phase of the intervention. Using a participant’s own words from the survey, we will deliver a series of simple and timely text-based messages (SMS or Slack) reminding employees the importance of mental well-being, and that resources are available if needed to stay on track with goals. Specifically designed to reduce barriers to mental health awareness and support, texts will be sent once a month on randomly assigned days over a six-month period. Individuals will receive personalized messages reiterating personal goals and aspirations, at high-impact moments in the employee’s day, to increase salience, offer encouragement and reinforce what resources are available to them. Recipients will then be asked to provide a text response advocating or asking for mental health programming in their office as per by Made of Millions “Dear Manager” campaign suggests. (Blair et al., 2019) To ensure the efficacy of cost and
delivery, we will utilize social tools already adopted within the organization, like Slack, SMS, or email.

The final phase will consist of a post-experiment survey relying on some of the same survey elements along with a mental health literacy assessment designed to measure the impact of stigma reduction. (Ending Discrimination Against People with Mental and Substance Use Disorders: The Evidence for Stigma Change, 2016)

Here we present our main hypotheses:

H0: *The behavioral intervention* will generate an overall reduction of stigma and negative stereotypes towards mental health.

H1: *The behavioral intervention* will increase of peer level support and sense of belonging in the treatment group versus the control group.

H2: *The behavioral intervention* will report an increase of requests and elevate the need for management-level programming and support around mental health and wellness in the organization in the treatment group vs. control

2. EXPERIMENTAL DESIGN

*Target Population And Sample*

Our preferable target population is employees from a company that in younger in corporate years, like Spotify which employs 1800 and MediaMath which employs 400, in their NY locations, and have already expressed interest. These companies are likely to have a median age of 39, a demographic most willing to talk about mental health, yet feel they don't have access to the right resources. They all tend to be hyper-competitive environments experiencing fast growth and constant competition against similar technologies and services. We believe this intervention will be just as relevant for a workplace that already has mental health programming and resources in place, where we could anticipate an uptick in usage of resources, as well as for those who don’t know where to start, and as a result of the intervention, might see requests for accommodations that could inform an employer of the optimal starting line for their needs.

Together we will work with organizational stakeholders to validate the behavioral diagnoses to inform the pilot for their specific team. For now, our assumptions imply that (1) employees do not have an accurate "mental model" of what workplace mental
health looks like or could look like, indicated by the structure organization, (2) mental health is deeply personal, and self-stigma impedes the path to organizational resources who are able to help, and (3) the competitive, tech-driven, goal-oriented nature of the organization creates a distracted workplace environment, and thus requires more relatable, salient messages.

*Treatments*

We will conduct a simple randomized control trial of the organization’s employee base. If the size of the company from an organizational level were small enough, we would prefer to deploy Phase 1 and 2, the videos and survey to all employees, while half of the staff will be randomly selected for Phase 3 text messaging campaign. We know this is overly optimistic and will work with organizational stakeholders to determine the right sample size.

*NOTE:* We acknowledge that it is difficult to conduct an experiment regarding mental health stigma without first conducting a pretest to mitigate respondent bias when addressing sensitive topics. We had originally considered designing a list survey with help from an organizational psychologist with Made of Millions, however were cautioned of bias contamination. We are also considering implementing a variation of the energy profile offered by Johnson and Johnson’s Human Performance Institute (HPI), which focuses on four types of human energy: Physical (fitness and nutrition), emotional (state of mind), mental (focus) and spiritual (motivation), and determines the level of an individual’s engagement. By working with practitioners at HPI, we can customize the survey towards the needs of the organization.
## Procedures And Behavioral Drivers

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<tr>
<th>TREATMENT</th>
<th>PHASE 1 - VIDEO</th>
<th>PHASE 1 SURVEY</th>
<th>PHASE 2 TEXT MESSAGES</th>
<th>POST INTERVENTION SURVEY</th>
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<tbody>
<tr>
<td>SOCIAL NORMS</td>
<td>Lets people know others have similar experiences and it's ok!</td>
<td>SELF-IMAGE Reinforces that you are valued, and recruits belief elicitation</td>
<td>SIMPLICITY TIMING, FEEDBACK &amp; REMINDERS Takes into account how busy people are, and they are not forgotten, and are delivered at visibly heightened moments of the day</td>
<td>SURVEY BASED ON 12- item Mental Health Knowledge Schedule to measure assess changes in perception within the organization</td>
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<tr>
<td>SOCIAL IDENTITY</td>
<td>You are not alone</td>
<td>SALIENCE Customized messaging to target office employees</td>
<td>COMMITMENT Includes a text response mechanism to reaffirm their advocacy mental health programming</td>
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<tr>
<td>FRAMING AND PRIMING</td>
<td>Activates desired identity, working in a healthy environment</td>
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**Film Series + Survey**

**Procedure:** Building on the communication approach started by Made of Millions, we will develop and randomly deploy a series of 6-8 short, 60-90-second, reportage-style testimonial films similar in treatment to that of Vice Films, which utilizes a raw, true-to-life perspective. (Made of Millions, Dear Manager) The films will feature a variety of different types of people from all levels within the organization identified by organizational stakeholders as influential. Evidence supports a number of benefits to using filmed interventions including the ability to reach large audiences, can be deployed across all devices via the internet, can include a diverse selection of people, and provide message consistency. (Clement, et al. 2012, Blair, et al. 2019) Immediately following the
completion of the video, treatment group participants will receive a link to complete a short survey will appear on the screen. (Ideas42 Case Study; Walton & Cohen, 2012)

**Behavioral Drivers:** Mass media interventions designed to reduce prejudice, mainly through the use of first-person narratives that deliver a social inclusion message have strong potential for efficacy. Because "entertainment, media consumption and storytelling are inherently social practices" there is a potential for peer influence to amplify the effect of the intervention. (Paluck, Green, 2009; Clement, et al. 2012; Blair, et.al, 2019)

Because mental health is largely self-stigmatized, like other groups that face discrimination, it is common to feel uncertain about a sense of belonging, a fundamental human need, in an organization. The format of each film will introduce the person with an explanation of the disorder they are living with, and how they manage their lives. Unlike many other films of this nature, this series will not have an excessively somber tone or delivery, but one of relatable, "matter-of-fact", sometimes funny, and in relevant cultural context in an effort to dispel feelings of exclusion, and rather, influence normative perceptions and increase social proximity. (Bicchieri, et. al, 2019; Walton & Cohen, 2011; Moller, et.al. 2006) Each film closes with a call to action asking employees to contact their H.R. to let them know what kind of support they need. At the close of the film a clickable link to post-video survey will be provided to elicit self-image beliefs about stress and overall well-being while the film's message is still salient. Another possible by-product is that responses could inform leaders of the types of programs they could offer their employees. This method and tactics support the hypothesis:

H0: The behavioral intervention will generate an overall reduction of stigma and negative stereotypes towards mental health.

H2: The behavioral intervention will report an increase of requests and elevate the need for management-level programming and support around mental health and wellness in the organization in the treatment group vs. control

**Text-based Intervention**

**Procedure:** Upon evaluation of the survey results, respondents will be randomly selected to receive, six timely, text-based messages over six months that remind employees of their mental health needs and professional goals, using their own words of encouragement (ideas42 case study, Blair, et.al, 2019) to stay committed to themselves
and their work. Each message will elicit a simple numeric response: "Press 1 to ask for help with a mental health challenge", "Press 2 to request accommodation", "Press 3 for more information on wellness initiatives". (Made of Millions, 2019) From the learning from Dimant & Hyndman’s Trust Game data (2019), we know that competition is a much more nuanced factor to contend with, we considered it mandatory to deliver messages through tools that employees are already using with frequency, and will take into consideration optimal times of day to send messages to participants to combat distractions and increase reception. (Fogg, 2009)

**Behavioral Drivers:** Building on the presumed value from the films and survey, we leverage information captured in the post-video survey in this phase of the intervention to tap into employees' pre-existing beliefs which we believe can influence lasting behavior change individual's sense of self and belonging within the organization. (Chang, et al., 2019) Hoff and Pandey (2012) suggest that individuals have multiple mental models of which the "frame-dependent self are situationally evoked, and mediate information processing." Changes in the salience of particular identities could provide a broader view of the possible ways to understand how individuals navigate workplace in planning for long-term sustainable change. (Sparkman & Walton, 2017; De, et al., 2018; Andreoni, et al., 2017) Since mental health programs are not currently being addressed or developed, there is no clear or simple pathway to getting help. By maintaining the salience of mental health care as a priority, in repeat message rounds, reminding and connecting people back to their personal goals, offer the potential to keep aspiration levels high. (Ideas42 Case Study) This method supports two of our main hypotheses:

H0: The behavioral intervention will generate an overall reduction of stigma and negative stereotypes towards mental health.

H1: The behavioral intervention will increase of peer level support and sense of belonging in the treatment group versus the control group.

**ANALYSIS**

The intent with this intervention design is to produce a simple unpaired t-test to evaluate differences in attitudes towards mental health between the treatment group (video, survey, and text message) and the control group (film and survey only). The primary mechanism we can evaluate is the text responses submitted from phase 3 of intervention. We'll scrub the results and remove any incomplete recording and look at the total number
of unique senders. We will then code the messages by the total number of unique requests, as well as the total number of common H.R. requests by type of support people are looking for from the organization over the six months. What we might expect to see are two primary codes: a global engagement measure and an accommodations request measure.

In regard to change evaluation post-intervention, we consider running the HPI energy survey 6-9 months later to see if there are any observable changes in employee perspectives around mental health and well-being. Additionally, we may also be able to view updated data accumulation on accommodations requests, usage, and other programming differences compared to pre-intervention conditions. We will work with the organization’s stakeholders to determine the best approach.

**DISCUSSION**

While there are many anti-prejudice-reduction programs with strong theoretical support that have been conducted in the lab, very little has been tested and measured in the field, leaving significant opportunity for academics and practitioners to partner to collaborate. (Paluck, Green, 2009) Another one of our greatest obstacles to testing and measuring the impact of stigma reduction is the scarcity of time. Behavior change such as a normative shift in mental health acceptance cannot happen overnight. For example, a paper reviewing the efficacy of diversity training programs, we see many employers want a quick fix with a one-off training approach. While attitudes may shift in the short term, sustainable behavior, as a result, has limited effects, which is why the SMS intervention can prove to be effective at longer-term change (Walton & Cohen, 2011). Similar to what we propose, Chang et al., (2019) suggest that employers offer repeated training interactions or longer session supported by other tactics to create sustainable behavior change.

Most importantly, given the dearth of evidence from an organizational context, a good first step for researchers, practitioners, and stakeholders (Briner, et. al, 2009) partner more frequently to gain a better understanding of stigma, by reviewing it from a relationship standpoint versus individual attributes, and therefore getting a better understanding of the normative influences that shape our communication from individual to organizational to societal levels. The process and mechanisms of how the messages that spread through organizations and communities to teach members to recognize and
shun out-group members, has been understudied and is still a top barrier to health promotion, treatment, and support, and also the least understood. Behavioral science can help uncover normative influences, and leverage behavioral drivers to challenge anti-social prohibition. (Smith, 2018, Made of Millions, 2019)

It is also important to look at what other industry leaders are doing to address workplace mental health. The American Heart Association has been putting the evidence-based management model to work with an interdisciplinary team of leaders from science, academia, and business leading a national CEO roundtable program providing facts figures, and program models for other organizations to use as a guide. (Briner, et al., 2009) While a select group of highly regarded organizations provided executive summaries of their mental programs, a notable stand-out is Levi Strauss & Co using a multi-tiered approach to mental health.

“To support the mental health of our employees, our goal is to remove barriers and reduce stigma for employees reaching out for mental health services. We do this in several ways:

• *Outreach:* Globally placed Wellness Champions allow us to understand geographically-based well-being challenges.

• *Coaching:* Our Human Performance program offers free coaching in areas of health, including but not limited to physical fitness and financial health.

• *Support:* Employee Resource Groups foster peer-to-peer connections, which helps to develop a supportive work environment”

With a robust mental health and wellness program with the right resources in place to support and facilitate needs, employees are able to function with a higher level of competence, relatedness, and autonomy. Supporting such a program with a strong behavioral intervention creates potential for a positive normative shift within an organization. (AHA, 2019, Moller, et al., 2006)

The Levi’s model raises a final point of concern when using media-based interventions in that we need to be extremely mindful and considerate with our use of digital content and tools. While media interventions have been proven highly effective, heavy usage of devices has also been a leading cause of workplace stress, communication breakdowns, and social distance. This further demonstrates the need for any stigma reduction design to not just increase social proximity in a virtual setting, but like the Levi’s model suggests, by increasing face-to-face human interaction as well. (George, et al., 2017; Haidt &
Twenge (2019) The efficacy of an intervention if done well could introduce new opportunities for reducing race, gender, and age discrimination as well.

APPENDIX

Beautiful Brains Behavior Design Salon Attendees
This evening event enabled concerned community thought-leaders to engage in constructive discussion to find ways to reduce mental health stigma in their organizations. Attendees:

Aaron Harvey, Founder, Ready Set Rocket, Made of Millions
Sophie Pauze, Head of Strategic Partnerships, Thrive NYC, Office of the Mayor
Elfe Cimicata, Head of Human Resources, Tribeca Film Festival
Jeremy Landis, Chief Technology Officer, SoulCycle
Elaine Castillo-Keller, UX Design Lead, Fabrica Collective
Kristen Ali Eglinton, Founder, Social Scientist, Footage Foundation
Patrick McCormick, Advertising Director, incoming Social Work MS candidate, UCLA
Aurelie Harp, Founder, Director, The Womanity Project
Alessandra Lariu, Founder, SheSays
Pamela Lasner, Verizon Media Internal Communications, Diversity and Inclusion
Josefine Hallenrud, HR Specialist, Spotify
Ektaa Aagarwal, Team Coach and Change Consultant, Accenture

Dear Manager Panel event
This evening event galvanized a hyper-connected NYC creative community with expert thought leaders to engage in constructive discussion to find ways to reduce mental health stigma in their organizations. Panelist:

Simon Fenwick, Head of Diversity and Inclusion
Dr. Jess Clemmons (@askdrjess), Psychiatrist and Influencer
Solome Tibebu, Behavioral Health Innovator, Cognific
Britta Larsen, Ask Britta HR Consulting
Dear Manager Campaign

“Entry and mid-level employees are often doing the work of two or more people and have managers that haven’t received proper training to deal with those stresses. It falls on the industry to create a better work-life balance and emotionally healthy environments.”

- Simon Fenwick, EVP of Diversity & Inclusion, 4A's
It’s rare for me to share my story as a suicide survivor in tech. As a knowledge worker, it is a really scary place to be. Every time I do it, though, I feel a little bit more able to be myself. Thank you @madedimensions for giving me space to share last night.
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